

Docket No. F-8171

Ser. No. 10/796,389

REMARKS

Claims 1-11 have been cancelled and respectively replaced with claims 12-22. New claims 23 and 24 have also been added.

The Abstract has been objected to and Applicant has amended the Abstract to overcome the objection.

Applicant expresses appreciation to the Examiner for determining that claims 7 and 11 contain allowable subject matter. New claims 23 and 24 both recite the limitations of cancelled Claim 1 as well as respectively recite the limitations of cancelled claims 7 and 11. Accordingly, Applicant respectfully asserts that these claims are allowable over the art.

Claim 9 has been objected to for failing to further limit the invention recited in Claim 1. As indicated, new claims 12 and 20 recite the limitations of cancelled claims 1 and 9. Claim 20 recites the limitation of an upstream induction heating system which is not recited in Claim 12 so that Claim 20 further limits the subject matter of the invention over Claim 12.

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Claims 4-5 and 8 are rejected under 35 USC § 112, second paragraph. New claims 15-16 and 19 recite the limitations of cancelled claims 4-5 and 8. Furthermore, the new claims have been drafted to omit language which the Examiner has asserted as rendering the claims indefinite.

Claims 1, 3, 4, 6, 8, 9 and 10 have been rejected under 35 USC § 102 (b) as being anticipated by Salzmann et al (USPN 5976449). Claim 5 is rejected under 35 USC § 103(a) as being unpatentable over Salzmann and Claim 2 is rejected as being unpatentable over Salzmann as modified by Sarracino (USPN 4609509) where Sarracino is cited for teaching a largely horizontally suspended tube that forms a catenary curve.

Applicant traverses the rejections as follows.

New claims 12, 14, 15, 17, 19 and 21 recite the limitations of cancelled claims 1, 3, 4, 6, 8, 9 and 10. New Claim 12 recites that the heating system is an induction heating system. Salzmann, on the other hand, recites only that the heating system 41 includes a thermally activated cross-linkage, i.e., a chemical bonding of the molecular chains of the insulation material and also of the semiconductor materials. Salzmann, col. 3, lns. 45-47. The reference fails to

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mention induction and also fails to mention the characteristics of induction heating, such as coils which heat the conductor for outwardly generating heat. As such, one skilled in the art would fail to find that the reference teaches induction heating. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USP2d 1913, 1920 (Fed. Cir. 1989) (an anticipating reference must show "the identical invention...in as complete detail as is contained in the claim").

Accordingly, Salzmann fails to teach providing a telescopic curing tube with an induction coil. Furthermore, none of the cited art teaches disposing a induction coil directly behind the extruder and providing a direct access to the extruder mouth for cleaning purposes as claimed. As such, the claims are not anticipated by the art. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051 (Fed. Cir. 1987) ("a claim is anticipated only if each and every element as set forth in the claim" is found in the cited prior art reference).

Turning to Sarracino, the reference teaches the process of cross-linking by heating in a curing tube filled with hot water. This migrates heat inwardly from the outside of the cable. Cross-linking of the polyethylene occurs first at the outside of the cable and with subsequent time cross-linking occurs in the inner parts

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of the cable. Therefore the curing time is long so that the curing tube has to be long and the velocity of the cable in the curing tube has to be slow.

To accelerate the process of cross-linking, the claimed invention takes additional measures in heating the cable. That is, the metallic cable core is heated by induction of electric energy into the core. This induction provides an additional means for heating the metallic core as compared to heating from the outside of the cable.

As compared with known techniques, the claimed invention provides the induction heating downstream of the extruder, after the insulating and semiconducting layers are provided on the metallic core. It is advantageous to disposed the induction coils immediately downstream of the extruder mouth because the curing tube can be made shorter. Furthermore, attaching the induction coils to a movable tube provides access to the mouth of the extruder, where the access to the extruder is important for cleaning the extruder mouth.

The above induction heating structure and location thereof was not taught by the art so that the cited art fails to render unpatentable the invention recited in new Claim 13. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974) (a prima

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face case of obviousness is established only where the combination of cited references teaches or suggests each limitation in the claim).

Applicant respectfully requests a one month extension of time for responding to the Office Action. **The fee of \$60.00 for the extension is provided for in the charge authorization presented in the PTO Form 2038, Credit Card Payment form, provided herewith.**

If there is any discrepancy between the fee(s) due and the fee payment authorized in the Credit Card Payment Form PTO-2038 or the Form PTO-2038 is missing or fee payment via the Form PTO-2038 cannot be processed, the USPTO is hereby authorized to charge any fee(s) or fee(s) deficiency or credit any excess payment to Deposit Account No. 10-1250.

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In light of the foregoing, the application is now believed to be in proper form for allowance of all claims and notice to that effect is earnestly solicited.

Respectfully submitted,

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